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Worldwide Report

EPIDEMIOLOGY

No. 298

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HUMAN DISEASES

ANIMAL DISEASES

PLANT DISEASES AND INSECT PEST

EFFORTS TO FIGHT RIVER BLINDNESS REPORTED

Paris LE MONDE in French 8 Sep 82 p 9

[Article by Claire Brisset: "River Blindness: Victory for Tomorrow?"]

[Text] Are the members of the extended family of United Nations institutions in a position to undertake a common effort? Too often experience in the field brings a negative answer to this question, particularly when it is a question of undertaking economic development activity whose too broad and poorly perceived objectives fade away without hope of recovery. However, everything can change once a specific, concrete, well-defined program has been identified. This is the principal lesson from the struggle being undertaken jointly by the World Bank, the FAO [United Nations Food and Agricultural Organization], the UNDP [United Nations Development Program] and a certain number of industrialized countries, including France, under the aegis of the World Health Organization. The object of the effort is to free the most disadvantaged areas of Africa south of the Sahara from onchocerciasis, or river blindness. The success of such a struggle--the largest undertaking of this kind that UN specialized bodies have ever undertaken--nevertheless depends on a bet that is far from a sure thing. In fact, despite the enormous sums spent on this program since 1975, it appears at present that the resistance capacity of the gnats that are carriers of the disease is so great that to consolidate the results achieved so far it would be necessary to expand the area being "treated" quite substantially. This would involve new expenditures that could end up almost doubling the funds already spent.

Thus, for more than a year the largest donors of funds have been turning a deaf ear to the views of the specialists--doctors and entomologists--according to whom the immediate and long-term future of the program requires its expansion. At a time when the principal industrialized countries--beginning with the United States--must deal with the temptation of reducing the efforts they are making on behalf

of the Third World countries, the answer they will give to the pressing questions of the specialists, and at the insistence of the African countries, will have crucial importance. That will be the object of the debate that will open in Bamako, Mali, next December. In the course of this meeting, in which all of the representatives of the donor and the benefiting countries will participate, the long-delayed decision to expand is scheduled to be adopted or rejected. To all appearances France will support the wishes of the African countries in favor of expanding the program. If this program does not succeed, river blindness, which today is under control in an area of about 750,000 square km, could become again what it was not so long ago--not only the cause of individual tragedies but also one of the principal obstacles to the economic development of Africa.

Shadow Over Africa

"If you go down there, you'll lose your sight." In the languages and customs of the Mossi area of Upper Volta, river blindness was always a shadow over the family. It was the shadow of blindness but also of death. Didn't a local phrase in common usage go: "An old, blind dead man?"

This was the profile of the disease for decades, well-known not only in the empirical knowledge of the people but also, thanks to the studies made by entomologists, geographers and doctors, known to science as well. Although also present in Yemen, Saudi Arabia and Latin America, river blindness has never been a major public health problem there.

On the other hand, in Africa south of the Sahara, and particularly in the Sahel area, river blindness has achieved epidemic proportions. According to estimates made in the early 1960's, about 20 million people were affected by the disease--almost all of them in Africa. The area most affected was around the Volta River basin. In this part of Africa, the disease had acquired such proportions that entire valleys had been deserted by their inhabitants. The valleys were the only fertile areas in this semidesert region. In certain villages, the proportion of blind people was more than 10 percent.

In view of the impotence of modern medicine to treat the disease, hopes turned toward entomology, thanks in particular to the work carried on by ORSTOM [Bureau of Overseas Scientific and Technical Research]. Detailed study of the gnat that spread the disease showed that to reproduce itself it needed to lay its eggs in rivers with a rapidly-falling flow of water, which was therefore highly oxygenated. The eggs become larva, which established themselves on plants, branches of trees or rocks. They fed on nutritive particles moved by the river current before they hatched on the surface of the water. On reaching the adult stage, the gnat flew off, mated and, before going to lay its eggs in the flowing water, went in search of its first human victim. If the victim then became a carrier of the micro-organisms of the disease, the cycle would continue without interruption.

From the research came the idea, developed in Bobo-Dioulasso in Upper Volta by a certain number of pioneers in the field--Doctors Ovazza, Richet, Hamon, Le Berre and Philippon, in particular, of working on river blindness by eliminating the carrier at the larval stage, that is, at the very source of reproduction. A strategy was then developed by OCCGE [Organization for Coordination and Cooperation in the Control of Major Endemic Diseases in West Africa] and ORSTOM, with a contribution from the FAC [French Aid and Cooperation Fund] under the European communities. The first efforts began in a limited area with readily available means. Insecticide was spread--DDT at the time--using land-based equipment, canoes and punctured containers. Despite the simplicity of this equipment and due to the extent of the first results, by the end of the 1960's the project was to take on quite another dimension.

At a conference in Tunis in 1969, the WHO and then the U.S. Agency for International Development showed their interest. Then came a decisive development in 1972: Robert McNamara, then president of the World Bank, visited Bobo-Dioulasso. In a few hours he became convinced that the eradication of river blindness--later on they would use the term "control," as this was considered more optimistic--was an essential step in the economic development of the area. He convinced the responsible officials of the UNDP and the FAO, who later agreed to participate in the program. The World Bank would manage the project, and the WHO would be the executive agent. In 1974 the basic agreement was signed by the international organizations and seven countries benefiting from it. In 1975 the OCP [Onchocerciasis Control Program] got under way with its headquarters in Ouagadougou, Upper Volta.

The project had been developed taking into account so many entomologists, so many liters of insecticide and so many square kilometers treated. It was based on an enormous effort to locate the larval deposits of the gnats--thousands of them in each place--and a "follow-up" on these deposits, because they move in accordance with the rains and the level of the rivers. Further, it was necessary to adopt an insecticide that would be the least toxic for the environment--once DDT was definitively prohibited. For this purpose, it was decided to use Temephos, a short-term insecticide that is cheap and easy to make. Above all, a method of aerial spraying was developed, using helicopters on twisting, forest-covered rivers and fixed-wing aircraft on broad, open rivers.

Today, the officials responsible for the program are "treating" up to 14,000 km of rivers and creeks in the rainy season and protecting an area of 750,000 square km, covering more than 10 million people.

Impressive Results

The results are impressive: In the area covered by the program, the transmission of river blindness disease has now been stopped. The 500,000 children born since 1975 are free of the disease. The incidence of blindness among adults has already declined noticeably.

However, the implementation of this program has now reached a decisive turning point. In effect, a number of problems have arisen whose solution will determine the whole future course of the effort.

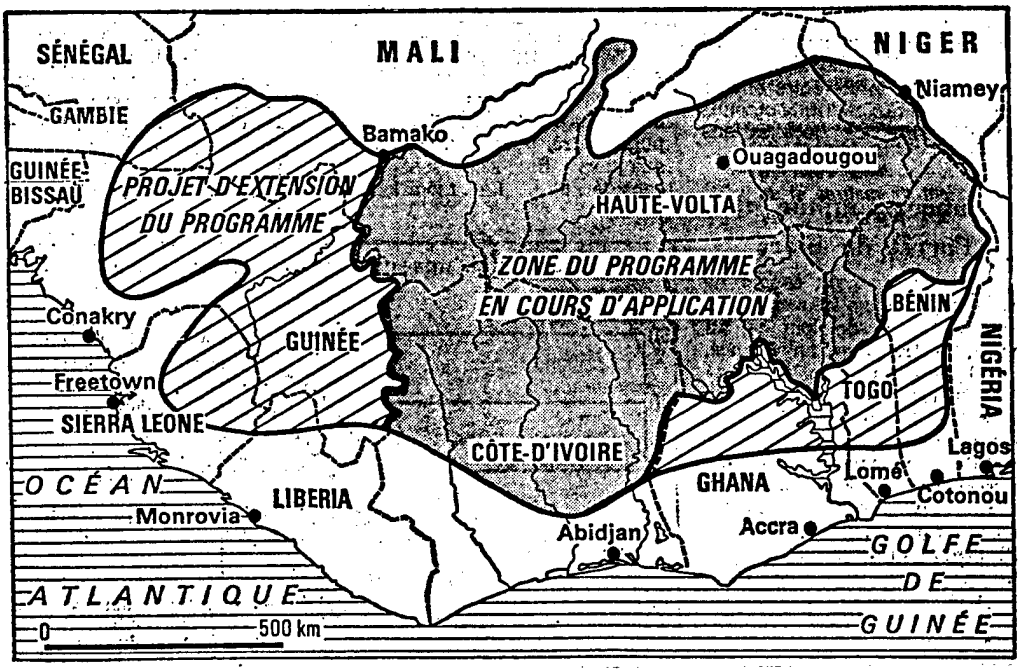
The first problem, and the least unexpected, has been the development of "immunity" by the gnats to the insecticide being used. Of course, this resistance has only appeared in the least dangerous species, the forest gnat. It was nonetheless necessary to find two other insecticides to replace Temephos over the past two years. The first replacement, chlorphoxism, very rapidly in turn brought out an immune reaction on the part of the gnats and is no longer used. The second replacement is radically different in type, since it involves a bacterium, bacillus thuringiensis. It has been remarkably effective up to now and is used in the southern part of the treatment zone. However, its present form needs to be improved and concentrated to permit its application over broad expanses of water. Furthermore, it will be necessary to continue with research on new kinds of insecticides to prevent the development of new forms of immunity among the gnats, which is always possible.

The second problem was much more unexpected. As the control of river blindness over the 750,000 square km in the program made progress, a number of gnats made a new appearance. Work by the entomologists determined that they came from outside the treatment zone. Up to that point it was thought that the gnat had only a flight radius of a few dozen kilometers. However, it was necessary to conclude that the flight radius was a few hundred kilometers. Carried on the winds, and in particular by the winds of the winter monsoon (June to October), the gnats from the Gulf of Guinea could thus reinfest some of the areas regarded as free of them.

From this circumstance came the idea for a considerable geographic extension of the treatment zone. This amounts to "covering" an additional 111,000 square km to the south (into Benin, Togo and Ghana) and an additional 430,000 square km to the west (to include three-quarters of Guinea, eastern Senegal, western Mali and half of Guinea-Bissau and Sierra Leone). In all, that means 28,000 km of rivers to be added to the total. It can be seen that those providing funds to the effort are hesitant to undertake such an enterprise. Whereas the money spent up to 1979 amounted to $54 million, the money to be spent in the zone presently covered from 1980 to 1985 will rise to $113 million. And how much will the extensions to the south and west cost, when the price of gasoline and of insecticides is steadily increasing?

Is the Extension Essential?

To these questions, the specialists answer that such an expansion is essential to protect the achievements of the program. For example, thousands of farmers have already resettled the previously deserted valleys, both from their own resources and with the aid of the countries involved--Upper Volta in particular. Is it possible to leave them to be exposed to the disease once again? Furthermore, the ministers of health in the countries to be involved in the extended project, particularly Mamadou Diop (Senegal) and Ngolo Traore (Mali), have made their views known. They have said that it is imperative to protect in turn areas affected by river blindness that were not included in the initial project, such as the basins of the Senegal and the upper Niger Rivers. In fact, very substantial agricultural and waterpower development projects are under way in these areas, such as the Manantali dam in Mali, projects that river blindness threatens to handicap seriously.



The program extends over all or part of the following seven nations: Benin, Ivory Coast, Ghana, Upper Volta, Mali, Niger and Togo.

- zone where program is currently being applied

- zone of projected program extension

Finally, other types of measures will be required if the results achieved since 1975 are to be consolidated: strengthening the health care systems of the various African countries so that they can take over the program over the long term. This will be difficult to the extent that this kind of effort by its very nature does not lend itself to being undertaken by village communities, as Dr Ouoba of the Upper Volta Ministry of Health has reminded us. It is difficult but essential to do.

That is the point you reach the limits of this program. "Vertical" by nature, since it attacks a single disease along a single pathway--the fight against the carrier of the disease, it is difficult for public health systems lacking in essential respects to take the program over. Even so, is it necessary to risk its success by delaying extension of the program indefinitely? There is no doubt that financial considerations will play a decisive role in the conclusions which will be reached in December in Bamako. In reality, there is also an economic and political stake involved, a conflict over development concepts as much as a technical debate.

The Gnat Bite

Onchocerciasis (river blindness) is transmitted from one human being to another by a gnat bite. While biting an affected individual, the gnat takes from the skin of the victim larvae living in it. These larvae go through a 7 day cycle in the body of the gnat at the end of which the gnat, through a new "blood transfer," will infect another victim.

In the human body, the "micro-organisms" introduced into it in this way will proliferate all the more, to the extent that the victim is subjected to further bites. They will live in the body of the human being for 1 to 2 years and a certain number of them will become adults, producing in turn millions of micro-organisms.

The micro-organisms are spread throughout the body but have a particular affinity for the skin and, in the last stage, for the eyes, which they destroy progressively. A certain number of adult micro-organisms live in human tissue in a free state. Others are concentrated in cysts, which are either on the skin and visible or hidden within the body and impossible to detect. In any case adult micro-organisms can live for more than 10 years.

As the infestation of the micro-organisms grows, the reactions of the body become more evident: large skin rashes, immunity to treatment, general weakening of the body and finally deterioration of vision and blindness.

Over the years medical research has led to the development of two kinds of medicine that brought much hope: the first type, Suramine, kills the adult micro-organism. However, it requires six intravenous injections at 1-week intervals under continuing medical supervision, which involves hospitalization. It also has a toxic effect on the kidneys and can cause serious allergic reactions. The second medicine is Diethylcarbamazine (DEC) or Notezine. It kills the micro-organisms but causes intense rashes, strong allergic reactions and a significant risk for the eyes.

Research carried out in Dakar, in laboratories in Paris and by the Merck, Sharp and Dohme Company has led to the development of a new product, Ivermectine, which can be administered in a single dose and, it seems, without any secondary effects.* However, it is still too soon to know if this is the long hoped-for medicine, whose effects can be added to those of the fight against the carrier of the disease, in order to treat those presently suffering from the disease on the one hand and to suppress the human "reservoir" of parasites in the future.

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* LANCET [Publication of the British Medical Society], 24 July 1982. Article published by Doctors Mohammed Aziz, Samba Diallo, Iba Diol, Michel Lariviere and Mauro Porta.

5170
CSO: 5400/5773

BRIEFS

BACTERIAL ANTHRAX OUTBREAK--With its usual helpfulness, the Chadian Red Cross brought together representatives of humanitarian organizations represented in Ndjamena yesterday to inform them of the tragic situation in Bir Abbaye, 180 km from Moussoro (Kanem). A crossroads for nomads, Bir Abbaye is experiencing an outbreak of bacterial anthrax which is hitting both animals and humans. Several deaths have been recorded. The Red Cross, alerted by the Moussoro Sub-Committee, passed on the word to the other organizations, which are now preparing to send a mission on the scene to help the people. (ATP) [Chadian Press Agency]. [Excerpt] [Ndjamena INFO TCHAD in French 4 Aug 82 p 4] 9516

CSO: 5400/5738

BRIEFS

YOGYAKARTA CHICKEN POX CASES--Yogyakarta, 22 Sep (ANTARA)--Chicken pox which theoretically only attacks children below 12 years of age is presently also assaulting persons of 20 years up and a number of cases have been reported in Yogyakarta area. Regional Health Service Chief Sarwidji told ANTARA Tuesday "severe cases" had been reported and dermatologists of "Dokter Sarjito" Hospital are currently holding internal discussions to observe and analyse the causes of the malignant attack. Meanwhile provincial health service authorities have called for careful observation of reports about incidences of smallpox which the World Health Organization (WHO) has declared entirely free from Indonesia since 1974. Sufferers are called upon to soon let themselves be examined by the health centers. Up till Tuesday, the local health authorities have received official reports of seven chicken pox patients from hospitals and practicing physicians and four cases direct from the community. It is feared that people are reluctant to report cases of chicken pox among them. [Text] Jakarta ANTARA in English 0759 GMT 22 Sep 82]

WEST JAVA HEMORRHAGIC FEVER--Bandung, 20 Sep (ANTARA/OANA)--The West Java Provincial Administration, throughout the provincial health service, is now intensifying the readication of hemorrhagic fever, which was recently rife in the Tasikmalaya Regency. According to the head of the West Java health service, Dr Rutandi, hemorrhagic fever has affected 20 regencies and four municipalities, consisting of 150 sub-districts, covering 300 villages in the province. In the first 8 months of this year, the disease affected 240 people in the 150 sub-districts, and killed 26 of them, Dr Rutandi disclosed. He admitted that the disease began to affect people in West Java in 1973. [Jakarta OANA in English 1221 GMT 20 Sep 82]

CSO: 5400/4301

PRK TUBERCULOSIS TREATMENT DESCRIBED

Vientiane VIENTIANE MAI in Lao 30 Jul 82 p 2

['Feature': "In the Land of Our Fraternal Neighbor"]

[Text] Two houses of medium size built on a small piece of land at the edge of (Chaneung Roukmin) Road (Phnom Penh) are a hospital for tuberculosis treatment. They are always crowded with patients and people who come for examinations.

This TB hospital in Phnom Penh now has 17 basic-level doctors; they have to examine, give out medicines, and give injections to 150-200 patients every day. It is indeed a difficult and tremendous work.

This hospital has 150 beds and can treat patients in serious condition right there. Dr Boun Chanson, the hospital chief, said that because of working too hard for many years the patients are very weak and in very bad condition physically. However, they did not receive any treatment. So when they have diseases they are in even more serious condition. The diseases that often occur are TB and rheumatic fever. There are a number of patients with diseases very rare in the world, meningitis, jaundice and uterine infection. In the first 6 months of this year this hospital treated 10 patients for encephalitis. Over almost 2 years the hospital has treated almost 9,000 TB patients.

The hospital has also organized a mobile examination unit. This unit uses a vehicle equipped with an x-ray machine. Each month it goes to each canton to check lungs and give injections to prevent TB for everyone. Meanwhile, the experts and doctors in the hospital work together at their best so they are able to examine and give out medicines in time to the patients who come for treatment.

This hospital for TB treatment is in Phnom Penh in an effort to make it an "example" in general for many different localities nationwide in order to be able to treat TB better than before. Dr Boun Chanson believes the suppression of diseases caused by the former society and TB should belong to the mass movement on a broad scale.

Kambok Canton, Kandal Province was selected as a place for experimentation. Here the people who are thought to have TB are given shots to prevent the disease. Those who actually have the disease are treated right at the place. The medical cadres examined the people according to schedule. Everyone is really impressed when they see for themselves this excellent work which is the kind of work that never before took place in the Pol Pot regime and earlier. In order to increase the number of medical cadres in this work the hospital also attentively trains technical cadres. The hospital's plan for the next 5 years is that all districts nationwide have a place to carry out experimentation as in Kambok Canton.

In the next 20-year period TB in Kampuchea will be suppressed and decreased. It will no longer be the endemic disease it is now.

We have complete confidence in Dr Boun Chanson's words concerning the suppression of social disease in Kampuchea.

No one will ever forget these figures. There were over 660 doctors in Kampuchea, and under the yoke of the Pol Pot-Ieng Sary regime that figure was decreased to less than 60 now. However, the work of treatment and the revival of the people's health for a nation that was terribly tortured has become the most urgent and most difficult responsibility. After the country was liberated the hospital reopened its doors for disease treatment for the people in a timely manner. The medical university has begun to train new medical doctors of all ranks. In many different localities public health units have been set up to prevent and treat diseases on a large scale. The public health work is effective. Thus, its strength is recognized by many public health organizations in many countries.

At the present time in Kampuchea the new administration is working on new work in primary bases to wipe out diseases from the old society, which is the kind of work that was never done in this country.

9884
CSO: 5400/5777

CHAMPASSAK SCHOOL TRAINS MALARIA TEAMS

Vientiane SIANG PASASON in Lao 18 Aug 82 p 2

[Article by S. Malathong: "Examination Results of the Malaria Suppression School"]

[Excerpts] The rain that was pouring down hard stopped, and the black clouds moved away leaving the sun shining brightly before sunset at the antimalaria school. Honored guests who were invited to attend the ceremony summarizing the school's activities were Mr Thong-in Thammakot, deputy secretary of the party committee, chairman of the provincial administrative committee. He also holds the post of chairman of the antimalaria guidance committee of Champassak Province, and others from units subordinate to the province.

Mr Chomsi of the school's board of directors reported school activities of teaching and studying based on the 6-month curriculum to successfully and victoriously implement the contents of the Third Congress of the LPRP, following the slogan, "consider disease prevention a priority, and treatment as important in order to ensure the health of the people of all nationalities so they can take part in the revolution in the period for advancing toward socialism." The antimalaria work is a way to respond to the [needs] of public health as set by the Ministry of Public Health to train cadres.

Mr Chomsi added that the Champassak school for antimalarial training had been newly set up. The learning process was still faced with obstacles both in [inconvenience] and difficulties because it was new in every way. Therefore, they are faced with many problems; however, because of the decisions of the teachers and the guidance of the party committee, the provincial administrative authorities assist this work to go on successfully to help this basic level antimalaria medical school to be officially opened with an agreement between the Ministry of Public Health, the provincial administrative authorities of Champassak Province, and the teachers.

Even though it is a new school, the problems mentioned are not obstacles for teachers and students of both sexes from four southern provinces, especially the 35 students of this first group who are all proud and happy in their study. This is because they understand that studying is an excellent way to advance

themselves to serve the people of all nationalities. They determinedly studied and completed 49 hours of theory and politics, 212 hours of epidemiology and treatment, 285 hours of entomology, 115 hours of parasitology and analysis, 30 hours of statistics and reports, 80 hours of health education, 88 hours of DDT spray study, and 48 hours of mapping. This included 130 hours of practice in carrying out the special task in parasitology, 148 hours of entomology, 74 hours of DDT spraying and 13 hours of mapping.

At the end [the chairman] asked all students to apply the basic theories they had learned to their own localities to decrease the sickness of the people, to use their creative ideas in revolutionary medicine in the protection and construction of the nation in order to implement the contents of the Third Congress of the party and to successfully carry out public health work.

9884
CSO: 5400/5777

BRIEFS

CHAMPASSAK MALARIA SUPPRESSION--In the first 6 months of 1982 cadres in the malaria station under the Public Health Service of Champassak Province all intensified the spirit of their revolutionary medicine and intelligence to efficiently carry out their specialized tasks. During that time they were able to spray DDT to suppress malaria in 63 cantons, 746 villages, and 53,078 houses; 273,846 people received treatment to prevent and cure malaria, and 132 malaria patients who received the treatment became well again. In order to make such an operation effective the station organized the support and training of 35 malaria suppression cadres, which included 8 women. It also trained 64 village medics and 250 sanitary combatants within the villages. Moreover, it also organized cadres to go and survey the malaria situation in 42 villages of 10 districts; 5,186 people had blood tests to check for malaria. At the present time cadres in the station mentioned are continuously carrying out their specialized task diligently and actively to compete with each other to make the resolution of the Third Congress of the party in the work of public health become reality. [Text] [Vientiane SIANG PASASON in Lao 16 Aug 82 pp 1, 3] 9884

KHAMMOUAN DISEASE OUTBREAKS--This year's rainy season the Malaria and Tropical Disease Institute under the Ministry of Public Health sent out a number of its specialized task cadres to [study] the causes and harmful effects of malaria, dysentery, whooping cough and eye infections of unusual occurrence in the area of Phon Tiou Canton, Hin Boun District, Khammouan Province. Meanwhile, they led cadres, workers and the people to promptly prevent and suppress the diseases mentioned after working hurriedly for 2 weeks. They tested and fairly effectively treated malaria. They successfully sprayed DDT in the areas of the Phon Tiou tin mine, Bo Neng, the Nong Seun tin mine, and 788 houses of the people in Phon Tiou Canton. They gave out antimalaria medicine to treat and prevent malaria to 5,415 cadres, workers and the people. These included 35,500 tablets of (Delagin), (Pileumetamine), and Fansidar, and 100 tablets of Quinine. This is to stop the diseases mentioned from spreading into other localities and to maintain the health of working people so they can contribute their effort and creativity effectively in production as well as mining at the expected level. [Text] [Vientiane SIANG PASASON in Lao 5 Aug 82 pp 1, 2] 9884

PHONG SALY MALARIA WORK--KPL--Since the middle of May the Public Health Service of Phong Saly Province has sent a numb er of specialized task cadres to cooperate with public health cadres from various districts subordinate to the province in antimalaria spraying operations in many offices and organizations, including villages and production bases of the people in a timely fashion. Up to now many localities have been successfully sprayed with DDT antimalaria liquid. A total of 964 houses were sprayed, and 2,999 people had physical examinations and were given antimalaria medicine. The malaria suppression operation is still being continuously and widely carried out. This is to maintain the health of the people to take part in the effective production of the wet rice paddy season this year. [Text] [Vientiane KHAOSAN PATHET LAO in Lao 21 Jun 82 p A2] 9884

MOSQUITO LARVAE-EATING FISH--Announcement of the Malaria and Tropical Disease Institute. In order to maintain the health of cadres, soldiers and people of Vientiane capital the Malaria and Tropical Disease Institute hereby announces to all people in Vientiane that by carrying out the project to prevent diseases caused by mosquitos as disease carriers to people we have put mosquito larvae (baby mosquitos)-eating fish into canals and ditches in the Vientiane area. The name of the fish is Kubby (or Boceilia Reticulata). They are a small fish that often likes to swim in dirty ditches looking for mosquito larvae to eat. Each fish can eat as many as 53 mosquito larvae within 24 hours. At the present time these fish are being put into all ditches in the Vientiane area. Therefore, we announce a ban on destroying or fishing them out to feed to ducks and chickens. If anyone sees this kind of fish, please take care of them in order to maintain our good health. [Vientiane VIENTIANE MAI in Lao 19 Aug 82 pp 1, 4] 9884

CSO: 5400/5777

BRIEFS

ANTI-RABIES VACCINES--The Rotary Clubs of Monrovia and Nimba yesterday presented 6,500 doses of anti-rabies vaccines to the Ministry of Health and Social Welfare in Monrovia. The drugs, provided under Rotary Internationl's Health, Hunger and Humanity (3-H) Program, arrived here late last month and would be used to treat savage dog bites. [Excerpt] [Monrovia DAILY OBSERVER in English 3 Sep 82 p 3]

CSO: 5400/5789

BRIEFS

COOPERATION SOUGHT ON DENGUE--Malaysia is seeking the cooperation of other countries with dengue experience to find more effective ways of overcoming the dengue problem. The deputy minister of health, Datuk Pathmanaban, says it is mutually beneficial for dengue-affected countries to work together and evolve more effective methods of surveillance and control of the disease. Meanwhile, another 16 new cases of dengue fever have been reported in the last 24 hours, bringing the total to 2,831. [BK270841 Luala Lumpur Domestic Service in English 1130 GMT 23 Sep 82]

CSO: 5400/4301

BRIEFS

RESURGENCE OF MALARIA--The health minister has called on WHO for help in combatting a recrudescence of malaria, since 585 cases of malaria were reported between 1 January and 31 July. In July alone, 36 cases were reported, 29 of them men. Last year there were 19 and 13 cases reported for July and August, respectively. The first 8 months of 1981, 575 cases were recorded. Natural disasters, such as cyclones "Claudette" and "Hyacinthe," in December 1979 and February 1980, contributed to breaking the nation's control of malaria. [Excerpts] [Port Louis L'EXPRESS in English 18 Sep 82 p 1]

CSO: 5400/4

BRIEFS

MORE ENCEPHALITIS REPORTED--LAHAN, Sept. 16--Fifteen persons are reported to have died of encephalitis in Raksu village panchayat between Udayapur and Siraha districts in the past two weeks. [Kathmandu THE MOTHERLAND in English 17 Sep 82 p 2]

CSO: 5400/4302

PAPER REPORTS CONCERNS ABOUT BRUCELLOSIS EPIDEMIC

Epidemic in Reunion

Saint Denis TEMOIGNAGES in French 7 Jul 82 p 2

[Article by D.D.B.: The Brucellosis Epidemic: The Plague Must Be Sized Up Completely"]

> [Text] During the weekly meeting of the prefecture, Mr Despas, departmental director of agriculture, made soothing remarks about the brucellosis epidemic that has struck our island. If he is to be believed, this plague presents no real dangers for local livestock. It is still too early to know whether or not Despas' optimism is justified. But we may wonder whether we are repeating the same mistakes made 6 years ago.

In European countries, France among them, the extent of the plague is perhaps not comparable to that of the epidemic in Reunion. But the EEC has taken draconian measures to suppress brucellosis in the affected regions. On 17 May 1977, a 3-year program was established for this purpose. And it was determined that the foreseen delay is insufficient to accomplish the group of tests for the detection of infested animals.

If the various concerned commissions of the EEC are grappling with the problem of brucellosis, it is because, according to them, "the eradication of this plague has important ramifications for the public health and for that of animals, as well as on the economic level."

They add that the eradication programs are directly beneficial to the health of livestock in the Community and are of equal importance for human health.

Prudence Is Recommended

Such remarks contrast sharply with the peremptory tone of the director of the DDA [Department of Agriculture], who gives the impression of sidestepping all the problems which still remain today. It seems to us premature to cry "victory" while only the livestock of the Plaine des Palmistes have been to some extent investigated.

It is not possible, at the present time, to estimate scientifically the extent of the epidemic in Reunion. And that is all the more true, alas, as the blood samplings are currently carried out on the herds of the Plaine des Caffes. While we wait for the results of these analyses, would it not be better to adopt a prudent attitude, instead of speaking in an overly reassuring way that may be belied tomorrow?

Reparation of Damages

It is up to the departmental services of the prefecture to take adequate steps, whatever they may be, for the complete eradication of brucellosis on our island. Mr Despas would gain in prestige if he could insist more strongly on this very point, in a way that will bring about clear answers to the questions that the stockbreeders are asking each other. And along the same line of thinking, draconian measures are necessary to avoid all future risks.

Did not the DDA give the "firmest" assurance that the plague had "totally" disappeared from Reunion 6 years ago? And can one today accept Mr Despas' declarations as true when one knows that all steps have not yet been taken to put a stop to the epidemic in its entirety?

Another problem of extreme importance is that of reparation of damages. On this point, one should know that the EEC is granting financial assistance for the slaughter of animals which react to the brucellosis tests. And the Community commissions point out that the total success of the programs will depend on two things:

1) The effectiveness of the tests carried out on the animals having a reaction;

2) The degree to which competent national authorities control the results in order to be assured that all requirements for the eradication program are respected, including control of the removals as well as the tests and identification.

Taking all these things into account, it is a matter among other things of building a complete dossier on the disasters of this epidemic so as to use the services of the EEC and the government for the prupose of obtaining indemnity from the EAGGF (European Agricultural Guidance and Guarantee Fund) for the stockbreeders.

It is not our intention to dramatize the situation. We are simply asking that this problem be dealt with in its entirety.

Dangers from Imports

Saint Denis TEMOIGNAGES in French 5 Jul 82 p 9

[Article by L.V.]

[Text] Yesterday morning the Mauritian ship, "Belle Isle," belonging to CGM Sce Capricorn, unloaded 200 animals from South Africa in the port of La Pointe des Galets. Some 200 others, also destined for consumption, as well as 6 to be used for breeding, set out from Mauritius.

While the specter of brucellosis haunts the entire island, this new arrival will not fail to excite many worries and questions. Moreover, yesterday morning, from the time the first animals were unloaded, the only subject of conversation was brucellosis...

Certainly these 200 animals are going to be destined for consumption like the 400 others which arrived several weeks ago.

They will be fattened and later slaughtered to become butchershop meat to be eaten.

However, considering the diversity of ways in which the sickness can be transmitted, it is permissible to ask for the greatest assurances concerning the importation of cattle from a country (South Africa) where the brucellosis sickness is raging.

Notably, have sufficient sanitary measures been taken to guarantee us that the animals are not affected by the sickness? The irresponsibility of those who had decided on the importation of cattle affected by brucellosis in 1976 brings to our country the risk of a serious economic catastrophe. Therefore, any new arrival of cattle from South Africa must be greeted with the greatest mistrust.

9955
CSO: 5400/5719

BRIEFS

REPORTED MALARIA EPIDEMIC DENIED--Malaria, this disease generally connected with the rainy season, has been rampant this year with special intensity. In the face of the many cases which have been noted, "a beginning epidemic" was publicly rumored. But it is not so, according to the medical authorities. Dr Ibrahima Ndoye, chief physician of the pediatric department of the regional hospital in Thies, indicated that between 1 and 10 September 1982, out of 1,240 sick children, there were about 61 cases of malaria, or about 4 percent of the total. For the same period in 1981, malaria cases constituted about 6 percent of the total cases. Moreover the number of fatal cases remains very low. [Dakar LE SOLEIL in French 17 Sep 82 p 7]

CSO: 5400/3

TPHA CONFERENCE SEEKS EFFECTIVE WAYS TO CONTROL MEASLES

Dar es Salaam DAILY NEWS in English 21 Sep 82 p 1

[Article by Emma Faraji]

[Excerpt]

HEALTH workers have been called upon to find effective ways of controlling measles, the child killer disease said to be yearly claiming 24,000 lives in the country.

Opening a two-day Scientific Conference of the Tanzania Public Health Association (TPHA) at the Muhimbili Medical Centre in Dar es Salaam yesterday, the Minister of State in the Prime Minister's Office, Ndugu Gertrude Mongella, said: "There are too many of us working at the wrong end of the problem".

She explained that despite the country's poverty, the cost of 1/- to 1/20 for one measles vaccine was well within the nation's means.

"This disease is preventable and the possibility is within our grasp", Ndugu Mongella said.

Ndugu Mongella decried the high fatality rate caused by measles in the country compared to other diseases such as cholera.

"Cholera killed 1,500 people at the height of its epidemic in 1978 while 24,000 children die every year from measles", she explained.

Detailing the seriousness of the disease, the Minister said that out of 3.3million children under five years of age, 600,000 suffer from measles and three to five per cent of these die every year.

She said even this death rate could be low because deaths from some measles complications were not recorded.

She stressed that health workers should find out why the country had failed to control the disease and how they could proceed to effectively fight it.

The two-day meeting, which is being attended by medical experts and researchers from Tanzania, Zambia and the World Health Organisation, focusses on the question of measles incidences, related illnesses, immunisation and management.

CSO: 5400/2

CHOLERA REAPPEARS IN MBEYA

Dar es Salaam DAILY NEWS in English 13 Sep 82 p 3

[Text] MBEYA--Elter-cholera has resurfaced in Mbeya region killing 21 people and affecting 109 others, the Regional Health Officer, Ndugu A. Mwaigomole told Shihata yesterday.

He said the epidemic resurfaced at Makongorosi gold mine and Galula village in Chunya district where the 21 deaths occured. A total of 102 people were affected in the district, he added.

The official said seven believed to have contaminated the killer disease in Chunya were admitted to hospital in Mbeya urban district. Five of them had been discharged, he said.

Ndugu Mwaigomole explained that remedial measures including dispatch of medical staff and medicine to the affected areas had been taken but called on Mbeya residents to observe hygienic conditions to contain the disease.

The official said the affected areas would not be placed under quarantine because that was not a foolproof solution. "The idea is to contain the disease and this will not be achie by merely restricting movement of people," he explained.

CSO: 5400/2

BRIEFS

ZANZIBAR DYSENTERY CONTROLLED--ZANZIBAR health authorities have succeeded in eradicating dysentery which errupted in the Isles almost five months ago, claiming 69 lives. The V.I. Hospital Chief Medical Officer, Dr. Athanas Sualy, told Shihata yesterday that the last patient was discharged last Saturday. He said since then, no new cases of dysentery have been reported adding that if a week passed without recurrency, "we can be sure that we have eradicated the disease on Zanzibar island." Meanwhile, it has been reported from Pemba that there were still five dysentery patients at Wete Regional Hospital. [Text] [Dar es Salaam DAILY NEWS in English 15 Sep 82 p 3]

CHOLERA DEATHS--Dar-es-Salaam, September 14--Twenty one people have died and more than 100 others have been affected by a cholera outbreak at a gold mine in Chunya district, in Tanzania's southern highlands area, the official news agency SHIHATA has reported. Although the agency did not say when the disease broke out, health authorities said all the deaths occurred at Makongorosi gold mine and in Galula village where 102 others contracted cholera. (A.F.P.) [Text] [Paris AFRICA AFP in English 17 Sep 82 p 16]

CSO: 5400/5790

BRIEFS

MEASLES PREVENTION--Efforts to intensify the campaign to combat measles in North-Western Province are being hampered by shortage of transport. The principal medical assistant for health education and tuberculosis, Mr Noah Tantula, said in Solwezi yesterday that although the annual allocation to the expanded programme of immunization had risen from K5,000 to K12,000, district supervisors had no reliable transport to cover most districts. He said the campaign may not succeed as planned in 1983 if the situation continues. Mr Tantula said supervisors mostly used vehicles from other departments and this had greatly contributed to the low immunization coverage. [Excerpt] [Lusaka DAILY MAIL in English 14 Sep 82 p 5]

CSO: 5400/5788

CATTLE PLAGUE SPREADING, IMPORTED CATTLE BLAMED

Cairo AL-SIYASI in Arabic 15 Aug 82 p 3

[Article by Mahmud 'Abd-al-Hamid: "Cattle Plague Spreads to al-Sharqiyah Governorate, Becomes Threat to a Third of Livestock Resources"]

[Text] The cattle plague has spread to al-Sharqiyah--A third of the livestock resources are endangered--An emergency condition has been declared--The livestock markest have been closed, and the governor has prohibited circulation of livestock among the various centers in the governorate.

The spread of the plague has resulted in large numbers of cattle and buffalo dying in the governorate, which is considered the top governorate in the republic in livestock production. Here the number of buffalo amounts to 200,000 head and cattle 225,000 head, besides large numbers of others which have not been counted.

Dr. 'Awda Muhammad al-Hadi (Director General of Veterinary Medicine in Al-Sharqiyah governorate) says: "The plague appeared in al-Sharqiyah ten days ago. The Directorate of Veterinary medicine immediately declared an emergency condition to face the threat of the disease, which is considered one of the most severe and most dangerous diseases to livestock resources, especially cattle, since this disease results in the death of cattle which are infected with it within ten days."

The seriousness of this epidemic is that, if livestock is infected with it, there is no treatment for it and it results in certain death.

Therefore, protection from its threat is a primary matter, since it is possible to inoculate livestock periodically with the plague vaccine.

How Did the Plague Arise?

The plague began to appear at al-Ibrahimiyah center in al-Sharqiyah, where the disease was reported appearing in 200 calves.

Among its most significant symptoms was a rise in temperature, severe diarrhea, congestion of the mucous membranes of the mouth, excessive salivation, ulceration in the abdominal cavity, nasal congestion, and then gradual emaciation.

This was complicated by the appearance of cases in a number of other centers, such as Bilbays and Abu Hamad.

In the face of this threat, Muhammad Amin Mitkays, Governor of al-Sharqiyah, issued a resolution not to move or circulate livestock among the centers in the governorate, nor to move them out of the governorate except by special permission from the Veterinary Medicine Administration in al-Sharqiyah.

At once, the governorate contacted the ministry of agriculture to work together on curbing the spread of the plague. The Directorate of Veterinary Medicine in al-Sharqiyah also inoculated all livestock in all parts of the governorate and announced veterinary quarantine of the livestock infected with the plague, as well as those suspected of infection, and the closure of all livestock markets in the governorate.

The governor issued instructions to place permenant monitoring stations on the roads and at entrances to the governorate to monitor the condition of animals entering and leaving the governorate.

Importers Are the Cause!

Teh plauge, as stated by Dr. 'Abd-al-Mun'im Barakat, general supervisor of the fight against the plague in the republic, is considered one of the most dangerous to livestock resources. If it is not countered with preventive inoculation, it guarantees annihilation of all livestock resources in several days. This disease is an epidemic endemic to Egypt which has not appeared in 20 years!

However, in recent times as a result of certain breeders importing livestock from abroad which were diseased or carrying the disease, without passing them through the customs health quarantine for livestock, the disease was transferred from the imported livestock to domestic ones. Eight governorates were infected: Qina, al-Fayyum, Bani Suwayf, al-Minya, al-Qalyubiyah, and several other governorates.

It is well known that if a single case of plague appeared in the entire republic, then the republic as a whole would be considered infected with the disease, because it spreads rapidly and there is no treatment for infected livestock. So far, this disease has resulted in the death of more than 2000 head of livestock in the whole republic.

Role of Quarantine Stations

The spread of the animal plague in Egypt has been furthered by the failure of the quarantine stations at the ports to satisfactorily perform their role as a result of the reliance on internal quarantine stations in each governorate. This is a grave danger, it does not make sense for the quarantine stations to be in the interior; rather, they should be outside the borders of populous areas, so taht the disease does not flow from imported animals to domestic ones, as has happened now. Thus, we implore the officials to abolish the quarantine stations in the governorates, because they are the main reason for the transfer of diseases.

The presence of this plague was also helped by the breeders importing different livestock for the purpose of improving the breed through insemination--behind the back of veterinary medicine [authorities].

This requires that veterinarians be granted the authority to monitor all companies which import meats and livestock, because there are some companies which import livestock for the purpose of slaughtering them, but then they breed them. This is a great danger, because those intended for slaughter may be slightly diseased, and with the breeding the disease is transferred.

One of the companies in the public sector has contributed, by importing animals intended for slaughter and breeding them in Egypt, to the spread of the disease undulant fever [brucellosis] among humans as a result of eating this meat--and this is a disease for which there is no treatment!

The plague is a viral disease caused by the cattle plague virus. Protection from it is possible through periodic inoculation each year of all animals, especially cattle and buffalo.

The plague vaccine is available in Egypt and is produced in abundance. There is no problem in producing or marketing it.

The livestock owners among the breeders need do no more than adhere to the instructions of the veterinarians, saving their assets on one hand and, more importantly, safeguarding the livestock resources from extinction.

In spite of the fact that we are an agricultural country, as they said of us in the past, where all of the green fodder and other necessities of raising animals are abundant, we are still in dire need of animal protein and animal byproducts.

Dreadful overpopulation threatens us, and the madness of continuously rising prices pursues us.

When will we cooperate with the Ministry of Supply and the veterinarians to preserve our livestock resources, so that what we are not prepared for does not happen, and our country become one of the countries subjected to the destruction of diseases because of the food and protein needed for the body.

We appeal to the veterinary officials to persevere in guiding the breeders, livestock owners and animal farmers in all the methods of protection from the epidemic diseases which destroy the animals, and to periodically inspect the governorates and give the vaccine immediately when the disease appears, or before it appears: An ounce of prevention is worth a pound of cure.

9605
CSO: 5400/5023

HIGH INCIDENCE, CAUSES OF ECHINOCOCCOSIS DISCUSSED

Athens EPIKAIRA in Greek No 735, 2 Sp 82 pp 60-61

[Excerpts] Echinococcosis is not, to be sure a "fashionable" disease, if it can be called that, like cancer or cardiovascular diseases are. It is an illness which is clearly "out of style" as it has practially disappeared today in the developed countries. One would expect, if nothing else, that the cases of echinococcosis would have at least diminished in our country. However, this is not the case. Today, and for many years in the past, Greece, along with Ururguay, is sadly in the first place when it comes to this forgotten illness.

According to what we are told by the Ministry of Agriculture (Directorate of Animal/ Human Diseases) approximately 1,300 operations fo echinococcosis are performed each year. However, this number is not representative because, we are informed, there are many more operations performed where the cases are not reported.

The cases are far more frequent in the provinces, and particularly in Northern Greece (Thraki, Makedonia) where the livestock raising areas are.

What Is It And How It Is Transmitted

The illness which is caused by the larvae of the tape [taeniae] of the echinococci is called either echinococcosis or hydatosis and it affects man and animals with the development of cysts in various parts of their organs. These cysts are the larvae of the tape of the echinococcus of the dog.

Dangers Caused By Ignorance And The Need For Proper Awareness

Naturally, nobody believes that we should exterminate the dogs in order to eradicate the disease in view of the fact that the dog is the primary carrier to man.

The enlightenment of the public, though. especially in livestock raising areas of the country, is indispensable as is necessary the adoption of various measures. There are thousands of dogs running loose in Greece today. How many of these are infected? Nobody knows.

"The ones which are the most dangerous--we are told by the Ministry of Agriculture--are the sheepdogs as a recent specimen examination revealed that 50 percent of them were infected by echinococcosis. This is due to the known practice of the sheep-herders to allow the dogs to eat dead sheep or other animals. If it is taken into

consideration that up to 80 percent of the sheep with 60 percent of the cattle and 10 percent of the goats and swine are infected, it can be understood why the recycling of the disease does not stop."

Something else which helps the spreading of echinococcosis--we are informed by the Ministry of Agriculture--is the lack of government slaughterhouses. The 400 slaughterhouses operating today in the country are not sufficient, with the result that, in the private ones, where there is no proper inspection, huge quntities of infected entrails are devoured by stray dogs which gather in such places.

Echinococcosis is characterized by physicians as an insidious disease because it does not show clear symptoms and it ususally takes time to become manifest (many times it takes 10-15 years to appear).

Eradication

Years ago Cyprus was among the countries most infected by echinococcosis. Today, after the adoption of a series of decisive measures, it has succeeded in freeing itself from this nightmare.

In our country, beyond the enlightenment of the public--the results of which show that it did not do much--the Ministry of Agriculture is proceeding to the signing of a decree whose enforcement will begin by stages, probably within 1982. It consists of:

The registration and tagging by a tattoo or number on their ear of all dogs owned by citizens. In this case there must be a veterinary observation card, while there will be a mandatory yearly examination by a private or government veterinarian.

It will be prohibited to allow dogs to run free. For the stray dogs there will be either an effort to have them "adopted" by someone or they will be confined in a public dog pound until they will be placed somewhere or, as hard as it may be, they will be given a euthanasia injection, especially if they are diseased.

The examination for echinococcosis of all slaughtered animals will become more generalized. That is, the townships will be required to use government slaughterhouses where an inspection is possible or the animals will be slaughtered at a common slaughterhouse where some government employee will inspect the entrails.

Regular issue of medicines, at least for sheepdogs every 40 days will be made by a government employee or a rural policeman.

9731
CSO: 5400/5333

BRIEFS

ANTHRAX TREATMENT--Starting on 10 July 1982 cadres of the Veterinarian Department and Agriculture Department along with veterinarian cadres of Vientiane and in seven other cities subordinate to Vientiane gave injections for the prevention and treatment of anthrax to the people's domestic animals all over. This disease often occurs in the rainy season. Moreover, from 13 July to 23 July 1982 these veterinarian cadres also gave injections for the prevention and treatment of disease to the people's livestock in Sisattanak and Saisettha Districts. The total number of these oxen and buffalos amounted to 1,353, which included 699 oxen. The injections in these two districts were completed, and at the present time they are continuously and hurriedly carrying out their operations in many other districts. It is expected to be completed by the beginning of this coming August. [Text] Vientiane VIENTIANE MAI in Lao 27 Jul 82 p 1] 9884

CSO: 5400/5777

BRIEFS

CONTAGIOUS BOVINE PLEUROPNEUMONIA CAMPAIGN--The Commission of the European Communities has just agreed to provide 600 million CFA Fr of financing toward a campaign against bovine pleuropneumonia. The new project follows several earlier ventures involving Community assistance in the struggle against bovine pleuropneumonia since 1976. The campaign focuses on two million cattle spread out over the departments of Niamey, Dosso, Tahoua and Diffa. The plan is to equip the Animal Husbandry Service with vehicles, refrigeration equipment for the preservation of vaccines, and vaccinating equipment, and to supervise the operation of vaccination teams. The aid is to vaccinate all the livestock in the area, and eventually to eliminate pleuropneumonia. [Text] [Niamey LE SAHEL in French 3 Aug 82 p 1] 9516

CSO: 5400/5738

BRIEFS

NONEXISTENCE OF PPCB IN NATION--Following the report which the APS made on the communication of 17 July of the chief of the Diourbel regional medical and animal products department to the CRD, which concerned the 1981-1982 livestock medical prophylaxis campaign, it is advisable to state that contagious bovine pleuropneumonia [PPCB] does not exist in Diourbel Region or elsewhere in Senegal and has not since 1977. [Excerpt] [Dakar LE SOLEIL in French 1 Sep 82 p 7]

CSO: 5400/6

ANTHRAX APPEARS IN THANH HOA PROVINCE

Hanoi TO QUOC in Vietnamese No 5, May 82 pp 28-29

/Article by Huyen Mai: "Commanding the Campaign Against the Epidemic"/

/Text/ The first person in Thanh Tan Village to go to the Pho Cat Post-Telegraph Office to contact the Vinh Thach District office was the vice chairman of the people's committee and head of the cooperative, Quach Cong An, a member of the Muong ethnic minority. "In 2 days, six healthy buffalo have died, please send us help, cadres!"

What caused the buffalo to die? It could not have been anthrax, which livestock engineer-veterinarian Trinh Hung did not even consider at that time, because 20 years ago Thanh Hoa announced that the disease had been extinguished; permission was given 3 years ago to stop administering anthrax vaccine. Nevertheless, he and technician Bui Van Bot sped to the village on their bicycles.

If they can be called "orders," the first order was issued by Commander Trinh Hung, the assistant head of the Vinh Thach District Agriculture Committee, which stated: "The corpses of the three buffalo that recently died must be preserved as they are. When the village reported that the first six buffalo had died, they cut "suitable" meat from them to eat. Excluding the other six animals, when they started to notice the symptoms of constipation and not eating, several over-eager fellows discussed the matter and came to a "snap decision." They also showed Hung and Bot the black blotches on their buffalo, with one saying that they had "lockjaw" and the others saying "even healthy buffalo have lockjaw, cadres!"

When they observed the bodies of the six persons who had cut up the buffalo for meat, Hung and Bot saw that both of the persons who used the knives had sores and swelling on their hands--where scratches on the tips of their fingers came into contact with the viscera of the buffalo.

Many measures to combat the epidemic (even though it had not been determined what the epidemic was) were taken to protect humans and protect buffalo and cattle. They administered vaccines, disinfected pens, poured kerosene on the dead animals and burned them or buried them in a deep pit covered with a thick layer of lime. Only 10 days after the first draft buffalo fell over, the sickness and death of

cattle showed signs of declining and were "confined" to the three villages of Thanh Tan, Tanh Tam and Thanh Van, spreading no farther. However, "what is this disease" was still the question that weighed heavily upon the commander of the campaign against the disease. As long as this question was not answered in a scientifically based manner, the 23,000 buffalo and cattle in Vinh Thach District would still be threatened.

With the caution of an engineer who has faced many challenges, Hung sent the following telegram to the Thanh Hoa Provincial Agriculture Service: I suspect an epidemic of anthrax among buffalo and cattle.

--"Hung, high fevers, not eating, constipation...in buffalo and cattle are also general symptoms of hog erysipelas and pasteurellosis. Send a telegram to the service and tell us whether or not they say that these symptoms came on quickly."

--"These are the symptoms in the textbook!"--Hung explained to Bot.

The textbook also states: "Buffalo and cattle that are afflicted with anthrax must also exhibit the symptom of gnashing their teeth. However, some of the buffalo and cattle that were languishing in the pens of the collectives and families were gnashing their teeth and some were not. Why?

Thus, the debate between Hung and Bot became a sharp debate; the person who believed that it was anthrax sent a telegram and the one who did not also sent a telegram. Were the cases of buffalo and cattle gnashing their teeth only isolated cases? It was truly difficult to make a diagnosis. By the time that two doctors from the agriculture service arrived in Thanh Tan, a number of dead buffalo and cattle had risen by one more: the tenth animal had died. Both of these persons stated that there was not enough data to determine the cause of the illness; they requested that pathelogical samples be taken and sent to the service for examination. Hung also had to send a telegram to the Veterinary Department of the Ministry of Agriculture.

At this point, no one any longer believed that the buffalo and cattle had "lockjaw."

Then, a ray of light appeared: two adults and one child who had eaten too much buffalo meat could not be saved; however, the health of the other persons (of a total of 40) was restored after they were doused with tetracycline powder and the sores on their hands and feet healed and dried. The efficacy of treatment was even greater when the people afflicted with the disease drank and applied to themselves vegacillin (one of the various types of medicines sent from the province).

If there were enough penicillin to provide prompt treatment, the number of dead buffalo and cattle would surely have not risen to 28 (of the 80 animals afflicted with the disease). It was unuaual for both the veterinary medicine cabinet of the province and that of the district to be "empty." The Van Du

State Farm (which is located in the vicinity of Thanh Van Village) still had 50 bottles but they were sent to the clinic (for humans) and it was necessary to travel for more than 2 hours and get through the procedures in order to bring the medicine back.

All the persons in the campaign, from technician Bot and the veterinarian to the village and cooperative cadres lost weight because they went many nights without sleep. Engineer Hung lost nearly 3 kilograms. When the person from the Veterinary Department of the Ministry of Agriculture arrived from Hanoi (who had the antigen for performing diagnosis by the Accoli Method, from which he received a positive response, and conducted a test on white rats, which contracted the disease), it was officially concluded that the disease was anthrax.

It seems that the district veterinary station lacks medicine and means for performing diagnosis. Had this situation been corrected, the "feat of arms" of the commander of the campaign against the epidemic could have been very much greater; the damage caused by the disease very possibly could have been less.

7809
CSO: 5400/5674

ANTI-FOOT-AND-MOUTH DISEASE MEASURES

Lusaka TIMES OF ZAMBIA in English 14 Sep 82 p 5

[Text]

THE Government, donor organisations and friendly countries spent K600,000 to control the foot-and-mouth disease in the Central and Southern provinces, Minister of Agriculture and Water Development Mr Unia Mwila said yesterday.

The Dutch government provided K50,000 worth of vaccines while the Food and Agriculture Organisation provided 310,000 doses.

The ministry had taken steps to combat other diseases.

"It is keeping in reserve 50,000 doses of vaccine."

In addition, the ministry hoped to carry out an annual vaccination programme of the Kafue Flats and Zambezi front through the Southern Africa Development Coordination Conference's regional approach to the control of foot-and-mouth disease.

An annual vaccination programme for cattle on the Zambezi front would be effected this year through a bilateral aid programme with France.

The exercise would cover the area between Livingstone and Sesheke and would involve some 100,000 cattle.

In the next 18 months, the protection levels in the blood of vaccinated cattle would be monitored and should the levels fall "dangerously low", preventive vaccination measures would be carried out.

The latest outbreak occurred in October last year and was the largest on record.

Hardest hit was the Southern Province with most of the area being affected. In Central Province, the disease was reported in Mumbwa district.

CSO: 5400/5788

BRIEFS

LIFTING OF CATTLE MOVEMENT BAN--The ban on cattle movement in Southern Province has been lifted, according to the Government Gazette notice published on Friday. Foot and mouth disease outbreaks in the past four years, forced the Government to restrict cattle sales and led to cancellation of agricultural shows. The Department of Veterinary and Tsetse Control Vaccinated a total of 200,000 animals and set up roadblocks to check the disease. [Text] [Lusaka SUNDAY TIMES in English 12 Sep 82 p 1]

CORRIDOR DISEASE CONTROL--The Department of Veterinary and Tsetse Control Services is to spend K27,000 on vaccines to control corridor disease which has affected cattle in some parts of Southern Province. The department's director, Dr Geoffrey Zyambo, however, complained that the amount was not sufficient to wipe out the disease which, he said, had affected Monze and Mazabuka. Dr Zyambo said the department asked for K42,000 but the amount that had been approved "is nothing considering the seriousness of the disease." [Excerpt] [Lusaka DAILY MAIL in English 16 Sep 82 p 7]

CSO: 5400/5789

GUATEMALA, HONDURAS AGREE TO CONTROL MEDITERRANEAN FLY

Guatemala DIARIO DE CENTRO AMERICA in Spanish 27 Aug 82 p 2

[Text] In order to halt the advance and damages caused by the Mediterranean fly, a meeting will be held in Tegucigalpa, Honduras, on 10 August by the following representatives of the MOSCAMED Tripartite Commission of Guatemala:

Agricultural engineer Jorge Anibal Escobedo, director; agricultural engineer Servando Lopez, Co-director; and agricultural engineer Jorge Benitez Coronado, chief executive of the MOSCAMED Program; along with the minister of natural resources, agricultural engineer Miguel Angel Bonilla R, for the purpose of establishing a coordinated commission consisting of the chief of the National Plant Health Program of the secretariat and representatives of the commission. A work program was developed jointly for the prevention, control, and possible elimination of the Mediterranean fly for an indefinite period. 1. This is due to the fact that Honduras has productive fruit orchards that the pest has attacked, chiefly on the Atlantic coast bordering on Guatemala; 2. At present a cooperative program against the Mediterranean fly is being carried in Guatemala with the participation of Mexico and the United States, which would be seriously affected if control measures in Honduras and border areas that are potentially fruit and coffee plantations are not implemented. The work program will deal with the infested areas, with priority being given to departments that border on the republic of Guatemala. Mexico and the United States will furnish: a) materials and equipment to permanently maintain a minimum of 1,000 detection traps in priority areas; b) materials for chemical control, consisting of insecticides and hydrolized protein, in accordance with the needs and the resources of the commission; c) advisers and training for the personnel of the program that will be developed in Honduras. They initially will become acquainted with the work that will be developed in Guatemala the week of 30 August to 3 September of the present year; and d) collaboration in research having to do with new techniques and procedures to be used in the prevention, control, and elimination of the pest.

8255
CSO: 5400/2216

BRIEFS

GRASSHOPPER DAMAGES--One of the primary reasons for the deterioration of the cocoa and coffee plantations in Dimbokro region, particularly at Bongouanou and Arrah, is the damage caused yearly by stinking grasshoppers (criquets plants). [Abidjan FRATERNITE MATIN in French 15 Sep 82 p 9]

CSO: 5400/5

ATTACK OF GRASSHOPPERS CAUSING OFFICIAL CONCERN

Dakar LE SOLEIL in French 18 Aug 82 p 13

[Article by Senegalese Press Agency]

[Text] The authorities have expressed their concern to Mr Serigne Lamine Diop.

Kaffrine--Attacks of grasshoppers have plagued the Sine-Saloum region since last August 9. This is why the status of the anti-pest campaign was of great concern to Mr Serigne Lamine Diop, the minister of rural development, during his two-day technical inspection visit to the departments of Kaffrine and Gossas. Throughout his trip, the minister was accompanied by the heads of SODEVA [expansion unknown] and the Plant Protection Service.

The minister went first of all to the administrative districts of Maleme Hodar and Koungheul with regional officials and technical experts, to record in the field the progress of the crops.

The technical experts took the opportunity to show him the situation. Though the rainy season actually started on 1 July, the rains did not become extensive until 11 July, and the total accumulated to date is 268.4 mm in 14 days of rain. This rain only affected the crops to any great degree in a few isolated pockets, except for the "souna" [translation unknown], the dry seedlings which had some problems linked to the inadequacy of the rainfall in the second half of June.

The other crops are growing normally. If spikes and caterpillars have been only moderately troublesome, the grasshoppers by contrast have spread all over a large part of the department, both north and south of the regulated forest of Mbegue, which especially disturbs the authorities.

The minister also went to Touba-Saloum, Gniby and Koungheul, where the grasshopper outbreak was first identified. The attacks that have occurred since the rains of 19 July are not too serious.

But, according to the technicians again, 10 percent of the seedlings are behind in their normal growing cycle. To assure the success in the crop protection campaign at Sine-Saloum, an additional 80 tons of HCH [expansion unknown] product are to be added to existing supplies of liquid products.

To that end, according to the director of the plant protection service, 1,000 tons of HCH will be provided by the Louga factory. The technicians and regional authorities intend to divide this total among the zones believed to be vulnerable, in order to ward off any other attack

Also, they have agreed with the peasants, that it is essential to plant beans or sorghum on the land stripped by the parasites. Mr Serigne Lamine Diop is continuing his tour in Gossas province.

9516
CSO: 5400/5738

BRIEFS

HA HUNG INSECT INFESTATION--As many as 29,000 hectares of rice in Hai Hung Province have been ravaged by leaf rollers, stem borers and brown planthoppers. Faced with this situation, the province has supplied local cooperatives with hundreds of insecticide sprayers, 10 tons of insecticide and 67 tons of gasoline and diesel oil in an effort to combat these insects. [Hanoi Domestic Service in Vietnamese 1430 GMT 18 Sep 82]

CSO: 5400/4301

RESEARCHER STRESSES NEED TO PREVENT GRAIN BORERS SPREAD

Lusaka SUNDAY TIMES in English 12 Sep 82 p 7

[Excerpt]

THE greater grain borer which destroys stored crops may spread from Tanzania to neighbouring countries unless preventive measures are taken soon, a researcher at Mount Makulu Research Station has warned.

Chairman of the Entomological Society of Zambia Mr Edward Sakufiwa said this in his review of the dangers of the pest presented to the second annual general and scientific meeting of the society in Lusaka yesterday.

Mr Sakufiwa said that two studies had been conducted between last year and this year along the border with Tanzania and it was established that "for the time being . . . Zambia is still free from the presence of the grain border".

But he warned: "Unless suitable precautions are taken there is a real danger that this pest will spread from Tanzania into other regions of Africa.

"Even with the limited work done on the greater borer in Tanzania the pest has demonstrated its destructive potential to stored food commodities. Weight losses of as much as 34 per cent after only three to four months storage of maize on the cobs of some Tanzanian farms should be seen to be of grave significance not only to Tanzania but to the whole East African region."

Regular monitoring and other precautionary measures would continue to be enforced in Zambia "for as long as the greater grain borer remains a threat," he said.

Last month, it was reported that the Ministry of Agriculture and Water Development had taken far-reaching measures aimed at curbing the spread of the pest from Tanzania into Zambia.

Minister of State for Agriculture Mr Justin Mukando said since the campaign to halt the spread of the vermin was launched, no reports of grain borer had reached the ministry.

He said his technical officers were on standby and well-equipped to handle the pest if it affected local crops.

END

CSO: 5400/5789